

Claims

1. A power converter for stepping down and converting alternating current (S) to direct current,
 - 5 said power converter comprising:
 - 10 first and second input connections (T1, T2) for inputting output of said alternating current;
 - 15 a first capacitor (C1) and a second capacitor (C2) interposed in series on a first electric connection line (L1) between said first input connection (T1) and said second input connection (T2), in order from a side of said first input connection;
 - 20 a first diode (D1) interposed between the first capacitor and said second capacitor on said first electric connection line so that its forward direction is toward said second input connection;
 - 25 a second diode (D2) interposed on a second electric connection line (L2) so that its reverse direction is toward said second input connection, said second electric connection line connecting a point between said first capacitor and said first diode on said first electric connection line, and said second input connection;
 - 30 a first output connection (T3) for output of said direct current, which is connected between said first diode and said second capacitor on said first electric connection line; and
 - 35 a second output connection (T4) for output of said direct current, which is connected to said second input connection.
 2. The power converter as set forth in claim 1, further comprising:
 - 40 a Zener diode (ZD) interposed between said first output connection (T3) and said second output connection (T4) so that its forward direction is toward said first output

connection.

3. The power converter as set forth in claim 2, further comprising:
a resistor (R) interposed on said first electric connection line (L1) on a side
5 closer to said first input connection than a position of connection with said second
electric connection line (L2).

4. The power converter as set forth in claim 3, wherein
said resistor is a thermistor.

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5. The power converter as set forth in claim 3, further comprising:
a third capacitor (C3) connected between one end of said resistor (R) and said
second input connection (T2).

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The power converter as set forth in claim 5, wherein
said one end of said resistor (R) is the end on the side of said second input
connection (T2).

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7. The power converter as set forth in claim 5, wherein
said one end of said resistor (R) is the end on the side of said first input
connection (T1).

8. The power converter as set forth in claim 5, wherein
a capacity ratio of said first capacitor to said third capacitor is set to about 1:1.

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9. The power converter as set forth in claim 6, wherein
a capacity ratio of said first capacitor to said third capacitor is set to about 1:1.
10. The power converter as set forth in claim 7, wherein
5 a capacity ratio of said first capacitor to said third capacitor is set to about 1:1.
11. The power converter as set forth in claim 1, further comprising:
a resistor (R) interposed on said first electric connection line (L1) on a side
closer to said first input connection than a position of connection with said second
10 electric connection line (L2).
12. The power converter as set forth in claim 11, wherein
said resistor is a thermistor.
- 15 13. The power converter as set forth in claim 11, further comprising:
a third capacitor (C3) connected between one end of said resistor (R) and said
second input connection (T2).
14. The power converter as set forth in claim 13, wherein
20 said one end of said resistor (R) is the end on the side of said second input
connection (T2).
15. The power converter as set forth in claim 13, wherein
said one end of said resistor (R) is the end on the side of said first input
25 connection (T1).

16. The power converter as set forth in claim 13, wherein
a capacity ratio of said first capacitor to said third capacitor is set to about 1:1.

17. The power converter as set forth in claim 14, wherein
5 a capacity ratio of said first capacitor to said third capacitor is set to about 1:1.

18. The power converter as set forth in claim 15, wherein
a capacity ratio of said first capacitor to said third capacitor is set to about 1:1.

10 19. The power converter as set forth in any one of claims 1 to 18, wherein
a capacity ratio of said first capacitor to said second capacitor is set to 1:1000.